Maine Department of Transportation

BIENNIAL TRANSPORTATION IMPROVEMENT PROGRAM

Fiscal Years 2002 - 2003

Prepared by

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Office of Freight Transportation
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INTRODUCTION

The *Biennial Transportation Improvement Program for Fiscal Years 2002 - 2003* (*BTIP*), covering the period between July 1, 2001, and June 30, 2003, is a project specific expression of the goals, objectives, and strategies articulated in the Maine Department of Transportation's (MDOT) *Twenty-Year Transportation Plan* and the project priorities identified in its current *Six-Year Transportation Improvement Plan.* The BTIP describes how the Department proposes to apply the capital funding included in its FY 2002-2003 biennial budget towards the study, design, and construction of transportation improvements throughout the state.

The MDOT continues to be committed to a policy of providing a balanced and integrated multimodal transportation system that meets the diverse needs of the state's citizens while preserving the significant investment Maine has made in its existing transportation infrastructure. As with most programs, funding constraints require a thorough review of projects to assure that available resources are being used in a manner that promotes the overall transportation goals of safety, preservation, efficiency, environmental protection, multimodal integration, and economic vitality.

The proposed capital improvement program presented herein, which supports the Governor's biennial budget request, represents a total investment of $613.16 million in federal, state, and local funding. Nearly 67 percent of this funding is anticipated to come from various federal categorical transportation programs.

Under this proposed BTIP, $490.26 million is earmarked for improvement of Maine's highways and bridges. With this level of funding, 123 state and local bridges and nearly 222 miles of arterial and collector highways will be improved, while pavement preservation treatments will be applied to over 400 miles of Maine highways that have been constructed to modern standards. This BTIP extends the Department's pavement management principles to urban as well as rural highways. In addition to the Pavement Preservation Program, a maintenance paving program of 1,450 miles is proposed.

This two-year program outlines the Department's allocation of federal and state funding to:

- ❑ maintain and improve the state's highway system,
- ❑ continue an increased level of effort in addressing structurally deficient bridges,
- ❑ support and enhance the state's passenger transportation system,
- ❑ further expand freight transportation options for Maine business and industry,
- ❑ continue needed improvements at Maine's airports,
- ❑ promote safety for all modes of transportation,
- ❑ promote bicycle and pedestrian projects, and
- ❑ continue activities that enhance the natural and cultural environment.

This BTIP includes $110.87 million and $12.03 million towards transportation projects developed through and administered by the Department's Office of Passenger Transportation and the Office of Freight Transportation, respectively. Passenger transportation capital funding is directed to priority projects included in the air transportation, ferry service, highway mass transit, passenger rail, and trail programs. The freight transportation element of this program emphasizes improvements in the rail freight, motor carrier, and marine transportation programs.

The funding associated with the projects included in this BTIP is consistent with the financial resources anticipated to be available to the MDOT over the two-year period. State funding, which comes from Highway Fund revenue, as well as from the General Fund, and a proposed General Fund bond request is included within the Department's FY 2002-2003 budget. The delivery of this capital improvement program is therefore contingent upon the Legislature's approval of the Governor's budget request.

As for federal funding, it is assumed that revenues for the biennium will be consistent with federal authorizations now in place. Current federal highway funding under the Transportation Equity Act of the 21st Century (TEA-21) is authorized through federal FY 2003. It is likely that new authorizing legislation will result in increased federal funds to the State, beginning in federal FY 2004 (October 1, 2003). Additionally, MDOT expects to secure financial support from special discretionary funding such as "high priority project" and "bridge discretionary" funding. The level of state funding included in this BTIP will allow the MDOT to be financially prepared for this potential upward adjustment of federal funding. Under a worst case scenario for federal funding, the state has the option to either delay program delivery or use new authority to borrow in anticipation of future federal funding with federal dollars paying the cost of debt service.

FUNDING

Funding to support this BTIP comes principally from a number of federal transportation programs matched by allocations from the State's Highway Fund and General Fund, General Fund bonds, and limited funding from municipalities and other sources.

Statewide transportation improvements to highways and bridges, air, rail, pedestrian/bicycle trails, transit, and ferry and marine facilities proposed in this BTIP total over $613 million. Of that amount, $408.24 million comes from federal sources, $113.80 million from the State Highway Fund, $1.09 million from the State General Fund, $61.00 million from the proceeds of a proposed General Fund bond, and $29.03 million from local and other sources.

Of the General Fund Bond, $43.90 million is earmarked to the highway and bridge improvement program. Of that amount, $41 million will support the match for nearly $100 million in federal highway funds, which together with $6.32 million in local funds, will provide for the improvement of nearly 222 miles of Maine's arterial, major collector, and minor collector highway systems. The remaining $2.90 million will provide funding to improve snowmobile and fishing access at state bridges. Freight transportation and passenger transportation related improvements are supported by $5.10 million and $12.00 million, respectively, of the General Fund Bond.

FY 2002-2003 Biennial Transportation Improvement Program
Summary of Program Funding
(millions of dollars)

Program Area	Federal	Federal Discretion[1]	State (HF)	State (GF)	(GF) Bond	Local / Others	Total
Bridges	306.16	14.32	113.13		43.90	12.75	490.26
Passenger Transportation	70.08	15.11	0.19	1.09	12.00	12.40	110.87
Freight Transportation	1.12	1.45	0.59		5.10	3.88	12.03
TOTAL	**$377.36**	**$30.88**	**$113.80**	**$1.09**	**$61.00**	**$29.03**	**$613.16**

[1] Includes High Priority Project, Bridge Discretionary, Ferry Boat Discretionary and Scenic Byways funds.

The following tables summarize the proposed funding for the major program elements contained within this FY 2002-2003 BTIP.

FY 2002 – 2003 Funding
Highway & Bridge Improvement Programs
(millions of dollars)

Program	Federal	Federal [1] Discretionary	State (HF)	State (GF) Bond	Local & Others	Total
Highway Improvements						
• ***Arterials***	58.82	0.57	2.83	11.11	0.71	74.04
• ***Major Collectors***	41.09	1.20	3.79	19.89	0.68	66.65
• ***Minor Collectors***				10.00	4.93	14.93
Highway Resurfacing	74.36		16.59		0.52	91.47
State Bridges	33.59	0.58	8.09			42.26
Local Bridges	7.90		5.87		3.78	17.55
Extraordinary Bridges	24.77	6.55	5.71			37.03
Struts			3.56			3.56
Recreational Access At Bridges				2.90		2.90
Hazard Elimination	4.21		0.47			4.68
Railway-Highway Intersection Improvement	1.83				0.08	1.91
Environmental Programs	1.83	2.40	0.77		0.02	5.02
Collector Improvements			5.46			5.46
Maintenance Resurfacing			20.35			20.35
Mobility Improvements	26.99	3.02	7.12		0.05	37.18
Other [2]	30.77		32.52		1.98	65.27
Subtotal	**$306.16**	**$14.32**	**$113.13**	**$43.90**	**$12.75**	**$490.26**

[1] Includes High Priority Project, Bridge Discretionary, and Scenic Byways funds
[2] Other includes projects such as traffic signals, planning studies, signing and pavement markings.

FY 2002-2003 Funding
Passenger Transportation Programs
(millions of dollars)

Program	Federal	State (HF)	GF Bond	State (Other)	Local/Others	Total
Air Transportation	33.24		3.25		2.03	38.52
Ferry Service	10.90	0.10	2.35		2.15	15.50
Highway Mass Transit	15.72		1.45	1.09	5.54	23.80
Intermodal Transportation	4.74		4.00			8.74
Marine Highway	2.00				0.50	2.50
Non-motorized	4.58		0.75		1.24	6.57
Passenger Rail	12.72				0.80	13.52
Planning Studies	0.36	0.09				0.45
Transportation Demand Mgt.	0.93		0.20		0.04	1.17
Subtotal	**$85.19**	**$0.19**	**$12.00**	**$1.09**	**$12.40**	**$110.87**

FY 2002-2003 Funding
Freight Transportation Programs
(millions of dollars)

Program	Federal	State (HF)	GF Bond	State (Other)	Local/Others	Total
Motor Carrier	1.12	0.12			0.38	1.62
Freight Rail			2.50		2.00	4.50
Marine	1.45	0.36	2.60		1.50	5.91
Subtotal	**$2.57**	**$0.48**	**$5.10**		**$3.88**	**$12.03**

PROGRAM OVERVIEW

HIGHWAY & BRIDGE PROGRAM

The largest and most important component of Maine's transportation system is its highway network. The overwhelming majority of people and goods are moved over the State's 22,612 miles of public highways, and the highway system consumes the vast majority of transportation expenditures. Currently, this system supports about 13 billion vehicle-miles of travel annually. The MDOT is responsible for approximately 8,269 miles, or 37% of the public road network where 78% of all travel occurs. Additionally, as part of this system, Maine has 3,564 public highway bridges.

The investment the State has made to date in developing this infrastructure is significant. The cost to maintain and upgrade this vital highway and bridge system is equally significant. The following outlines the capital improvement programs and initiatives proposed for the FY 2002-2003 biennium to respond to the highway and bridge improvement needs articulated in the *20-Year Transportation Plan* and *6-Year Transportation Improvement Plan*.

Highway Improvement

This BTIP proposes projects that will improve nearly 222 miles of the State's arterial, major collector, and minor collector highway system at a cost of approximately $153.7 million.

❑ Arterial Highways

Of the 8,269 miles of roadways administered and maintained by the MDOT, approximately 2,554 miles are classified as principal and minor arterial roadways. In May 2000, the 119th Legislature enacted a law requiring MDOT to present biennial budgets that will result in improvement of the rural arterial highway system to modern design standards within 10 years. This commitment to eliminate the existing backlog of rural arterial reconstruction needs over the next ten years represents the most ambitious highway program undertaken by MDOT in recent years.

Under this initiative, an average of 58 miles of rural arterial highway will need to be improved in each of the next five bienniums, as compared to the 43 miles contained in the FY 2000-2001 BTIP. This program includes funding to improve approximately 52 miles of rural arterial highway. Although this is less than the 58-mile per biennium target, this BTIP includes sufficient funding for preliminary engineering to deliver 64 rural arterial miles to construction in FY 2004-2005 to compensate for the FY 2002-2003 shortfall. Also, included in this BTIP is proposed funding to improve another 4 miles of urban arterial highway, resulting in a total of approximately 56 miles of improved arterial highways statewide.

Major Collector Corridors

Of the 8,269 miles of roadways administered and maintained by the MDOT, approximately 3,488 miles are classified as major collector roadways. Approximately 1,922 miles of this system have been identified as substandard and in need of improvement. A goal of the MDOT is to address this backlog over a twenty-year period, which equates to approximately 96 miles of improvement per year. This commitment represents a significant mileage increase in the program compared to the 18 miles of improvements per year addressed in the FY 1998-1999 BTIP and the 50 miles per year contained in the FY 2000-2001 BTIP.

The fiscal constraints anticipated in the foreseeable future will limit this program to approximately 50 miles per year. However, the Department's goal to eliminate all major collector backlog will be achieved over the twenty-year time frame by directing more of its financial resources to the Major Collector Corridor Program once the legislatively mandated Arterial Program has been completed in the next ten years.

Route 219, West Paris

This BTIP includes the funding to improve approximately 111 miles of major collector highway.

In a departure from past BTIPs, improvements to the major collector system are being developed on a corridor basis rather than a project-by-project basis. This corridor-based approach will provide a more cost effective means of achieving the improvements for this roadway system.

This BTIP includes the funding to improve approximately 111 miles of major collector highway.

Minor Collectors

There are 2,200 miles of minor collector highways spread across Maine through almost 400 municipalities. The Rural Road Initiative (RRI), enacted by the Legislature in 1999, created a new framework for addressing improvement needs on this system of highways. Under the RRI, the State provides two-thirds of the improvement cost while the municipality provides the remaining one-third. Further, if a municipality has the expertise, there is an option for

local administration of a project, which may be desirable in terms of having more ability to manage project costs locally.

To initiate this new program, the MDOT has developed a set of minor collector road standards, a State / local agreement, and a set of goals and objectives. The Assistant Division Engineer in each of the MDOT's 7 Division offices will work directly with interested municipalities to determine project scope and cost, based on a municipality's need and its available resources. This BTIP contains $10 million in State funds, which will leverage another $5 million in local funds, to finance an estimated 50 miles of minor collector improvements over the FY 2002-2003 biennium. The projects are not identified in this BTIP, but will be awarded annually on a project-by-project basis over the next two years. In addition to the 50 miles of minor collector roadways that will be improved under this program, another 5 miles will be addressed under the Collector Improvement Program discussed below.

❑ Collector Improvement Program

This program provides $5.5 million to support spot improvements on roads functionally classified as collectors. Projects are included in this program for minor roadway rehabilitation, safety improvements, culvert replacement, ditch and drainage improvements, and guardrail improvements**.**

Pavement Preservation

The pavement on Maine's highway network is presently in good condition and has remained in good condition for more than 16 years. This can be directly attributed to the MDOT's increased support of its pavement management program.

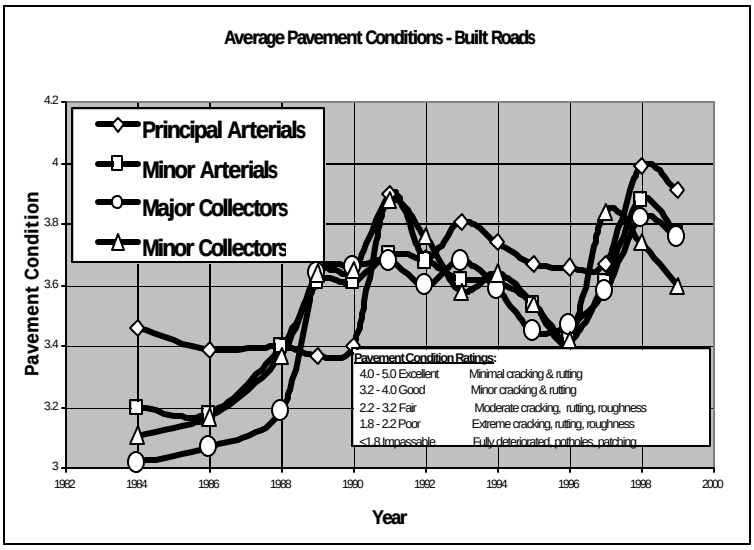
The three primary goals of the Department's pavement management program are:

- ***To maintain the same average condition of the State's overall highway network,***
- ***To prevent increases in deficient and unacceptable mileage, and***
- ***To maintain the present distributions of conditions within each highway system.***

To accomplish the Pavement Management Program's goals, appropriate pavement preservation treatment will be provided on those State roadways that have been built to acceptable standards and that can adequately handle existing traffic loads and volumes. Aside from bridge improvements, pavement preservation is the MDOT's highest capital improvement priority.

The MDOT maintains over 8,260 miles of arterial and collector highway throughout the State. Nearly one half of these miles have been improved to handle current traffic loads and to meet current standards for vehicle safety. This represents a major investment that must be protected through a properly executed preventative maintenance program. By maintaining the pavement's integrity, the MDOT seeks to avoid damages to the highway system that

would require major capital investments to restore. The MDOT's philosophy addresses preservation needs before any other highway work is undertaken.



The cost of pavement preservation has steadily increased over the past several years, from approximately $120,000 per mile in 1996, to an average of $220,000 per mile for projects included in this BTIP. There are a number of factors that have contributed to this increase. First, is the changing complexity of the work. As compared to past years, there are is an increase in the number miles of roads requiring more intensive work such as, rebasing and paving shoulders, ditching, culvert replacement, and guardrail replacement, in order to restore the integrity of the pavement and roadway structure. Second, is the effect of inflation and cost increases. Asphalt pavement prices have increased by 28% between 1996 and the present. Additionally, fuel cost increases have affected construction prices by added equipment operating costs. Lastly, the MDOT has increased the use of pavement reclaiming and recycling in its overall Pavement Preservation Program. Approximately 10% of the pavement preservation projects included in this BTIP involve pavement reclaiming. While this adds short-term cost, it results in lower life-cycle costs overall. These treatments add $50,000 per mile in project cost, but yield another 5 years of pavement life.

As part of the proposed Pavement Preservation Program, over 260 miles of roadway shoulders will be upgraded from a gravel to a paved surface.

The Pavement Preservation Program proposed in this BTIP will address over 400 miles of arterial and collector highways. Although this represents fewer miles than proposed in both the FY 1998-1999 and FY 2000-2001 BTIPs, it does represent the anticipated needs in the upcoming biennium.

Maintenance Paving

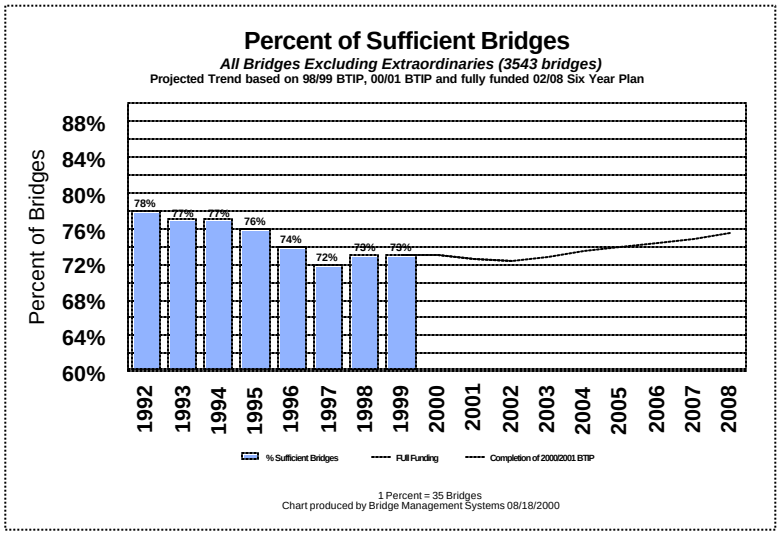
Maintenance paving typically has an average useful life of 6 to 7 years. It is not a structural overlay but rather a maintenance treatment. With this biennial program, Maine will meet its 1995 objectives of matching maintenance paving frequency with the expected useful life of this treatment. During Fiscal Years 2002 and 2003, 1,450 miles of maintenance paving is proposed, at a cost of roughly $20.4 million (excluding trucking costs).

Bridge Replacement & Rehabilitation

Studies have shown that the condition of Maine's bridges is steadily declining, and that there are significant costs associated with rehabilitation and replacement of these bridges. As a result, a major emphasis of this BTIP has been placed on the rehabilitation and improvement of Maine's bridges.

State Bridges

The Department's *Six-Year Transportation Improvement Plan* identifies 3,564 public highway bridges having a clear span length of at least 10 feet. In an effort to assess remaining life, these bridges can be categorized into two distinct groups. The first group includes 720 steel bridge culverts that have a normal service life of 50 years; the second group includes the remaining 2,844 bridges that have a normal service life of 70 years, assuming an adequate level of maintenance and rehabilitation.



Presently, approximately 73 percent of Maine's bridges are classified as structurally and functionally sufficient, down from 78 percent in 1992. The overall decline in bridge sufficiency experienced in the early 1990s leveled out in 1997. Since that time, as a direct result of the MDOT's policy of giving priority to deficient bridges, the percent of deficient bridges has not increased.

An analysis of the needed bridge replacement and rehabilitation investments that must be made to address the "backlog" of structural and functional deficiencies is outlined in the *Six-Year Transportation Improvement Plan.* The recommended investment strategy to control and reduce the "backlog" will be met by funding the individual bridge projects in this BTIP. This BTIP proposes to correct bridge deficiencies on 68 State bridges at a cost of approximately $40.2 million.

Extraordinary Bridges

Extraordinary bridges are structures with a length of 250 feet or more and which have an improvement cost equal to or exceeding $5 million. The MDOT's *Six-Year Transportation Improvement Plan* identifies 17 extraordinary bridges that will require some type of major capital improvement within the next 20 years at a cost of $230 million, in today's dollars.

This BTIP includes approximately $35.3 million to address immediate extraordinary bridge needs. Among the projects funded or partially funded under the extraordinary bridge program are the replacement of the Center, West and East Bridges in Fairfield and Benton; the construction of a new Kennebec River crossing in Augusta; the construction of new "flyover" bridges on Main Street in Lewiston; the continuation of the rehabilitation of the Waldo Hancock (suspension) Bridge in Prospect-Verona; and the continuation of the rehabilitation of the Carlton Bridge in Bath-Woolwich. Funds have also been included for preliminary engineering for future improvement of a number of bridges including: the Covered Bridge in Norridgewock; the Deer Isle-Sedgwick Bridge in Deer Isle; the International Bridge in Fort Kent; and the Old Town-Milford Bridge on Route 2.

Sagadahoc Bridge - Bath/Woolwich

Local Bridges

Legislation enacted by the 112th Maine Legislature requires the MDOT to biennially prepare a list of local bridges eligible for capital improvements. The priority of candidates is established through consideration of a number of factors related to the inadequacy and use of each bridge. Cost sharing for projects implemented under this program, where there is local responsibility, is based on a single formula encompassing factors that measure the ability of the town to pay and the town's relative use of the structure, as well as the availability of State and federal funding.

The local bridge portion of this BTIP addresses 48 local bridges at a cost of $16.7 million, which is part of an overall $92.2 million Bridge Rehabilitation and Replacement program.

MDOT has submitted legislation, which is currently being reviewed by the Maine Municipal Association, that would significantly alter the current method of improving local bridges. Under the current program, municipalities and counties share in the cost of improvements listed in this BTIP. Under the proposed legislation, MDOT would pay the entire cost of improvement of all structures on state aid roads. Further, MDOT would pay the entire cost of improvement of bridges over 20 feet in length on town ways, excepting only low use or redundant bridges. Municipalities would be responsible for minor spans (20 feet or less) on town roads. MDOT and municipalities would equally share the cost of improvement of low use or redundant bridges on town ways, with a cap on the municipal share of 1% of the town's valuation. The adoption of this proposed program revision by the Legislature will have an impact on many of the local bridges included in this BTIP.

Strut Replacement Program

The term "strut" applies to a culvert type drainage structure that generally has a diameter greater than 5 feet, but in all cases less than 10 feet. Spans in excess of 10 feet in diameter qualify as a bridge under State law. Historically, it has been difficult to address improvement needs of the 5-10 foot diameter culverts with respect to existing funding sources. They are too costly to replace under normal maintenance functions and the scope of work is too small to qualify for traditional bridge funding. Struts have not been included in MDOT's bridge inspection program and generally have been replaced only when included as a part of a highway reconstruction project or when structural failure has begun. As a result, the backlog of deficient strut type drainage structures is growing and is a concern of the MDOT.

In 1999, a comprehensive inventory and field inspection of these drainage structures was conducted that identified 298 struts considered to be deficient with an associated replacement cost of over $19 million. Of the 298 deficient struts, 87 were found to be in very poor or critical condition.

This BTIP includes $3.56 million to begin the systematic replacement of all "critical," "very poor," "poor," and "marginally poor" struts on non-backlog arterial and collector highways. This program assumes that backlog arterial and major collector struts will be addressed through the arterial and major collector highway construction programs. This level of investment will result in the replacement of all "critical" and "very poor" struts by the end of the FY 2004-2005 biennium, and of all the "poor" and "marginally poor" struts by the end of the FY 2010-2011 biennium. Additional strut improvements, funded as part of the Collector Improvement Program, bring the total strut replacement effort in this BTIP to approximately $4.60 million.

Transportation Safety

The transportation safety program consists of two general program areas: Hazard Elimination Program and Railway-Highway Intersection Improvement Program. Both programs apply to all public roads in Maine.

The Hazard Elimination Program addresses existing and potential high hazard locations that exhibit treatable crash patterns. Projects are selected based upon a benefit-to-cost analysis. Example projects include horizontal and vertical realignment of roads having insufficient sight distances, intersection channelization, signal improvements, installation of rumble strips on rural interstate areas, and guardrail upgrade on the National Highway System. Twenty-five hazard elimination projects with a total cost of approximately $4.68 million are included in this BTIP.

The Railway-Highway Intersection Improvement Program addresses safety issues involving rail grade crossings at public roads. Projects are selected based upon a scoring system that considers the type of existing crossing protection device, crash potential, operating characteristics, and the condition of the crossing surface. Example projects include the

installation and upgrade of existing crossing warning devices and grade crossing surface improvements. Eighteen grade crossing projects with a total cost of approximately $1.91 million are included in this BTIP.

Other safety improvements will be routinely performed in the course of other transportation system improvements. Examples include guardrail replacement or rehabilitation and other safety feature enhancements implemented with pavement overlays. Horizontal and vertical alignment problems are routinely addressed in reconstruction projects in order to meet current safety standards.

Highway Mobility

This BTIP includes projects where mobility improvement is needed. The aim of highway mobility projects is to improve the flow of traffic at locations having capacity limitations or other operational deficiencies. These projects range from improving roadway geometry and traffic control at major intersections, to adding lanes on heavily traveled arterial routes, or relieving deficient locations by adding new capacity at new locations. The major highway mobility projects proposed in this BTIP include the first phase of construction of a new Kennebec River crossing in Augusta; construction of a westerly bypass of the village of Gray; construction of "flyover" bridges on Main Street in Lewiston; initial phases of the construction of a new connector road from I-295 to West Commercial Street in Portland; and funding for preliminary engineering and environmental assessment for a new river crossing in Skowhegan.

Environmental Programs

In addition to assuring environmental stewardship on all MDOT projects, MDOT's Environmental Office administers several programs, which enhance Maine's environment and make Maine's transportation system compatible with public and community expectations.

Several MDOT environmental programs aim for pollution prevention and restoration of natural resources affected by transportation infrastructure, including the Surface Water Quality Protection Program, Rest Area Resource Protection Program, and Critical Ecosystem Restoration Fund. The Crown Vetch Planting Program provides for safer and lower cost maintenance of roadside vegetation while reducing the Department's use of pesticides. MDOT also continues its aggressive work to restore Atlantic Salmon habitat across Maine.

Other MDOT environmental programs focus on urban and community environment through the Community Gateways Program, Wildflower Program, and active landscape efforts both on and off the Interstate. The Scenic Byways Program works to support sustainable economic development and to promote tourism by enhancing and marketing Maine's most scenic highway resources.

Summary of Highway & Bridge Improvements
FY 1998-1999, FY 2000-2001, FY 2002-2003
(Cost in Millions)

	1998-1999 BTIP		2000-2001 BTIP		2002-2003 BTIP	
	Miles/ Projects	**Cost**	**Miles/ Projects**	**Cost**	**Miles/ Projects**	**Cost**
Highway Improvements						
Principal Arterial	30.8	45.2	22.9	33.9	**28.1**	**38.6**
Minor Arterial	39.4	28.9	20.2	22.4	**27.5**	**28.7**
Major Collector	36.4	19.9	101.4	44.1	**110.8**	**68.9**
Minor Collector	39.1	12.5	25.4	4.4	**55.1**	**17.5**
Total Improvement	145.7	$106.5	169.9	$104.8	**221.5**	**$153.7**
Resurfacing						
Interstate	86	14.3	64	12.4	**44.6**	**9.7**
Principal Arterial	67	14.6	119	21.8	**80.9**	**20.6**
Minor Arterial	123	16.1	137	22.7	**139.5**	**31.7**
Major Collector	184	12.6	149	19.1	**135.9**	**29.4**
Total Resurfacing	460	$57.6	469	$76.0	**400.9**	**$91.4**
Maintenance Paving	1401	$16.3	1451	$14.8	**1450.0**	**$20.4**
Bridges						
State Bridges	68	40.3	43	33.3	**68**	**40.2**
Local Bridges	46	14.8	62	18.0	**48**	**16.7**
Extraordinary Bridges	2	$67.3	7	$23.1	**7**	**35.3**
Total Bridges	116	$122.4	112	$74.4	**123**	**$92.2**
Struts			26	$1.2	**58**	**$4.6**
Summary does not include projects funded for preconstruction engineering.						

PASSENGER TRANSPORTATION PROGRAM

The Office of Passenger Transportation (OPT) is responsible for the development of an efficient, environmentally sensitive, and cost effective passenger transportation system that encourages the use of alternate transportation modes to meet the present and future needs of our citizens, businesses, and visitors.

To accomplish this mission OPT has created *Explore Maine*, a comprehensive Strategic Passenger Transportation Plan consistent with MDOT's *20 Year Transportation Plan* and *Six Year Transport6ation Improvement Plan.* The philosophy inherent in these Plans involves a transition from funding projects that are viable, but disconnected, to a holistic approach of funding projects that develop a comprehensive seamless transportation system. To achieve this shift in philosophy, the majority of the Federal Highway Administration's Congestion Mitigation and Air Quality Program and Enhancement Program funds, along with funds provided by the Federal Aviation Administration, Federal Transit Administration and a supporting transportation investment bond request are committed to this effort.

Air Transportation

The Air Transportation Program (ATP) consists of a continuance of the Capital Improvement Program (CIP) and the Pavement Management Program at Maine's 36 public airports. The ATP falls into seven categories as follows: Entitlement Airports; Commercial Service Airports; Reliever Airports; General Aviation Airports, Pavement Preservation, Obstruction Removal, and Continuous Systems Planning.

Portland International Jetport

The MDOT has developed and is continuously updating a five-year Airport Transportation System Plan, which identifies the aviation facilities needed to meet current and future air transportation needs of the State. In addition, each of the aforementioned airports is required to develop individual master plans to identify aviation requirements and attendant facilities while integrating environmental and community goals, as well as the goals contained in the MDOT's *20-Year Transportation Plan* and *Six-Year Transportation Improvement Plan.* The eligible Airport Improvement Program (AIP) projects in the ATP have been coordinated with the Federal

Aviation Administration and incorporated into its five-year capital program. The MDOT will provide direct assistance to those communities where projects are determined not to be eligible for Federal funding.

The MDOT's *Six-Year Transportation Improvement Plan* for Air Transportation focuses on major reconstruction projects at Airports with estimated project costs exceeding $1 million. The investment reflected in this Program funds approximately 2/3 of the projects contained in the *Six-Year Transportation Improvement Plan*, such as, engineering and permitting for runway and terminal reconstruction at Bangor; runway reconstruction at Pittsfield and Portland; apron rehabilitation and expansion at Bar Harbor; obstruction removal in Auburn; apron and terminal construction in Rockland; and numerous other smaller airport projects funded with Federal, State and Local resources. The *Six-Year Transportation Improvement Plan* places a greater emphasis on the Airport Preservation and Airport Obstruction Removal Programs and, accordingly state funding of $600,000 for runway overlays and $400,000 for obstruction removal is proposed in this program.

Ferry Service Program

The Ferry Service Program (FSP) consists of ferry and ferry terminal improvement projects that enable the State to maintain existing service to residents of, and visitors to, the islands in Penobscot, Blue Hill, and Casco Bays. The FSP will continue capital improvements started in the late 1980s to upgrade facilities of the Maine State Ferry Service. The program includes new transfer bridges in Rockland and Portland. Federal funding support has been requested for replacement ferry vessels for service to Casco and Penobscot Bays.

Highway Mass Transportation Program

The Highway Mass Transportation Program (HMTP) consists of three capital acquisition elements that are contingent upon receipt of grants from the Federal Transit Administration. As indicated in the *Six-Year Transportation Improvement Plan,* a substantial level of investment is necessary to maintain the aging transit fleet providing service to the State. During this biennium, a discretionary request totaling $8 million will be submitted to the Federal Transit Administration. This request will be used to fund a comprehensive statewide transit fleet replacement for both fixed route and demand response service. Wherever practicable, alternatively fueled vehicles will be acquired. A General Fund Bond request will be submitted to the Legislature to provide state matching funds.

Intermodal Transportation Program

As indicated in the *Six-Year Transportation Improvement Plan,* the success of *Explore Maine* will depend upon providing a seamless transportation experience for visitors to Maine. This will include connections between terminals and access to local transportation at tourist destinations. The Intermodal Transportation Program (ITP) contains funding for intermodal facilities in Bath, Bangor, Rockland, Brunswick, Freeport, and Newcastle.

To facilitate the utilization of the modal options provided by this network, the Transportation Demand Management Program (TDMP) consists of specific projects that implement transportation control measures to achieve a cost effective and efficient transportation system. Projects include public education and marketing of alternative modes of transportation and a bi-regionally linked commuter transportation program.

Marine Highway

As reflected in the MDOT's *Six-Year Transportation Improvement Plan*, *Explore Maine* proposes the development of a Marine Highway (privately operated high speed seasonal passenger ferries and water taxis) linking coastal communities. The Marine Highway Program (MHP) contains funding for midcoast development of the marine highway at Portland, Bath, Rockland, and Bar Harbor; and waterfront development in Bangor and Brewer.

Bicycle / Pedestrian Program

The focus of the Bicycle / Pedestrian Program (BPP) is on improving bicycle and pedestrian mobility in the State of Maine. The BPP is responsible for institutionalizing walking and bicycling as transportation modes within the State.

The BPP contains funding for design and construction of community bicycle / pedestrian facilities, chiefly within service center communities and rural villages, as well as for trail corridor development outlined in the MDOT's *Six-Year Transportation Improvement Plan*. In addition to bicycle / pedestrian facilities proposed in this BTIP, the MDOT's policy is to provide paved shoulders on pavement preservation and highway improvement projects to support bicycle / pedestrian travel where warranted.

Bicycle / Pedestrian Trail, Brunswick

Rail Transportation Program

The Passenger Rail Transportation Program (PRTP) contains funding for rail improvements in support of re-establishing passenger rail service between Portland and Brunswick, Portland and Auburn, and from Rockland to Brunswick. The corridor rehabilitation schedule is fully described in the MDOT's *Six-Year Transportation Improvement Plan*.

FREIGHT TRANSPORTATION PROGRAM

MDOT's Office of Freight Transportation (OFT) is responsible for MDOT efforts relating to ports, railroads, airports, and motor carriers transporting freight to and from market. OFT was created in January 1996, to formulate policy, programs, and projects that work with Maine's freight transportation network as a seamless cohesive system.

To help guide freight policy, in 1998, the OFT produced an *Integrated Freight Plan.* This plan is consistent with MDOT's *20-Year Transportation Plan* and *Six-Year Transportation Improvement Plan*, calls for the development of a more efficient and free-flowing multimodal freight system. It is now being updated with the thought that giving Maine companies more choices for shipping and receiving their products will reduce transportation costs and improve Maine's overall business climate. For example, due to the construction of the truck-to-rail intermodal facility in Auburn, a number of Maine companies no longer need to move their intermodal shipments out of the Boston area. Another example is the current port rehabilitation at the Port of Searsport. This project is a unique public-private partnership between MDOT and the private sector. These types of projects save thousands of dollars in shipping costs annually for Maine companies and make them more competitive in global markets.

Truck-to-Rail Intermodal Facility, Auburn

Motor Carrier Program

As noted in MDOT's *20-Year Transportation Plan, Six-Year Transportation Improvement Plan,* and OFT's *Integrated Freight Plan,* motor carriers are by far the primary mode of freight transportation in Maine, constituting approximately 87% of all transported freight tonnage in 1999. In light of this market condition, over the next two years, MDOT's Office of Freight Transportation plans to undertake a number of motor carrier initiatives in order to promote the safe, efficient flow of motor carriers throughout Maine. In this regard, OFT is designating Heavy Haul Truck Routes throughout the State. Funds are programmed for the construction of two new truck weigh areas, for preliminary engineering to automate the existing truck weigh area in Kittery, and for replacements needed for the Maine State Police Commercial Vehicle Enforcement Unit's motor vehicle fleet and weigh scales inventory. OFT

has also included funding for a technology improvement package that includes Phase II implementation of a unified motor carrier database at the Bureau of Motor vehicles (UMCAMS), for enhanced access of commercial vehicles to a tri-state traveler information system, and for the purchase of weigh-in-motion software and equipment. MDOT will continue to seek federal discretionary funds under the FHWA Borders and Corridors Program.

Freight Rail Program

The Freight Rail Transportation Program (FRTP) builds upon MDOT's previous programs and initiatives that help to promote a safe, efficient, and manageable freight rail system for the State of Maine. This rail program is consistent with MDOT's Three-Rail Carrier Strategy.

Traditionally, MDOT has provided a 50/50 match for rail projects that have both a public and private economic benefit arising from market demands on the three major rail carriers in Maine. MDOT also has included funding for track extension at the Loring Commerce Centre, as well as track and bridge improvements to Lower Road and other state-owned lines. The Industrial Rail Access Program (IRAP) will continue with previously programmed funds.

Marine Program

The Marine Program, which is consistent with MDOT's Three Port Strategy, continues to develop Maine's coastal infrastructure. Requests are included to cover cost escalation for the construction of the new General Purpose Cargo Pier at Mack Point in Searsport that will allow shipping in this area to diversify and grow amid the changing product markets. Funding is also included for landside and marine improvements to small coastal harbors (SHIP Program).

Cargo Pier, Estes Head, Eastport

PUBLIC PARTICIPATION

The MDOT has developed a multi-tiered public participation process to assure ample opportunity for those wishing to comment on MDOT initiatives in the areas of transportation planning and project development. This multi-tiered process includes public involvement in the development and updates of the *20-Year Statewide Transportation Plan,* the *Six-Year Transportation Improvement Plan,* the *Statewide Transportation Improvement Program (STIP)* and, lastly, input into project development and design decisions.

There were two major opportunities for public involvement related to the development of this program. The first was the solicitation and acceptance of project requests from municipalities. Every municipality was contacted by the MDOT and asked to submit candidate transportation improvement projects that were important to them. As part of this process the municipality was asked to indicate the priority of each requested project and its consistency with their locally adopted comprehensive plans.

The second major opportunity for public involvement was in the development of the *Six-Year Transportation Improvement Plan,* from which many of the projects contained in this program have been drawn. The priority assigned to projects in that Plan were established with the assistance and cooperation of the State's Regional Planning Commissions (RPCs), established regional highway corridor committees, and the seven Regional Transportation Advisory Committees (RTACs). The RTACs, which are an outgrowth of Maine's Sensible Transportation Policy Act, serve as an active link between the MDOT and the public, advising the MDOT on transportation policy and program issues. During the Fall 2000, the MDOT, with the assistance of the RTACs, presented the *Six-Year Transportation Improvement Plan* at a series of public information meetings held throughout the State to solicit public comment and input prior to the Plan's finalization. Also, through this RTAC "partnership," the MDOT strengthens its understanding of regional transportation project priorities and the consistency of those priorities with regional transportation goals and objectives. The MDOT looks forward to the continued involvement of the RTACs in the capital programming process.

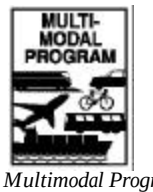
The State's Metropolitan Planning Organizations (MPOs) have also made significant contributions to the development of this BTIP. As part of their transportation planning and capital programming responsibilities, each MPO identified transportation improvement needs and priorities within their respective regions. This work provided the basis for the development of their Transportation Improvement Programs (TIP). Projects contained in the MPO TIPs have been incorporated into this BTIP.

PROJECT LISTINGS

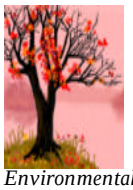
Reader's Note

The transportation improvement projects proposed for the 2002-2003 biennium are summarized on the following pages, first, by MDOT Maintenance Division, and second, alphabetically by municipality within each Division. Each project description includes the project identification number (PIN), route or roadway name, type and description of work, roadway functional class, length of project (if highway related), project location, estimated cost, and primary fund source. Icons (shown below) preceding each project listing indicate the MDOT unit responsible for developing the project.


Bridge Program



Multimodal Program


Environmental Office

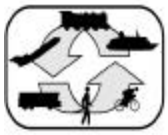
Regional Program


Bureau of Maintenance & Operations


Bureau of Planning

Urban & Arterial Program


Office of Freight Transportation


Office of Passenger Transportation

In the event that a project extends into more than one municipality or Maintenance Division, all affected municipalities will be listed in that description and the project will be identified by only one PIN. Project descriptions with multiple municipalities are listed directionally from south to north and west to east, with the first town dictating the alphabetical priority. Projects that are statewide or regional in nature appear in the front of the listing under "Statewide/Regional Projects". A glossary of terms used is included at the end of the listing. For your convenience an index is provided listing municipalities in alphabetical order, indicating the affected MDOT Maintenance Division and BTIP page number where projects are described.

BTIP GLOSSARY

Backlog - transportation infrastructure identified as in need of reconstruction or improvement to bring them up to modern operational and safety standards and adequate structural capacity.

BRBH - Bridge Replacement / Bridge Rehabilitation. A federal funding source for bridge replacement / rehabilitation that are structurally deficient and / or functionally obsolete.

CMAQ - Congestion Mitigation and Air Quality, a federal funding source to benefit improved air quality in nonattainment areas.

CUL - Compact Urban Line

ENH – Transportation Enhancement

FAA - Federal Aviation Administration

FBD - Ferry Boat Discretionary, a federal funding source.

FHWA - Federal Highway Administration

FTA - Federal Transit Administration

GFB - General Fund Bond

Highway Improvement - Major rehabilitation or reconstruction of a roadway.

Highway Resurfacing/Level I - Resurfacing of an "A" highway for the first time or the next resurfacing after a more intensive resurfacing project. The treatment is concentrated on extending the life of the pavement, usually be resurfacing with a goal of at least 75 percent of the project cost in pavement items. Work is concentrated on the surface of the roadway between shoulder berms with only an occasional item beyond that is necessary to maintain the core of the roadway. Nonfunctional guardrail systems will be repaired or replaced. Other components such as ditching, culverts and roadside safety are in satisfactory condition. This is what has been called the PPP program.

Highway Resurfacing/Level II - This is treatment to an "A" highway for the second time after it is constructed, often alternating with level I treatments. This level emphasizes pavement expenditures but also maintains drainage structures, ditches, replaces culverts, updates or replaces guardrail as necessary, addresses roadside safety issues, and upgrading of bridge guardrail connections. Pavement treatments include overlays, grinding and overlay, cold-in-place recycling, among others.

Highway Resurfacing/Level III - Treatment to an "A" or "B" highway when more intensive work is required than described in levels I or II. Work may involve rebasing shoulders, heavy ditching, rebasing a few hundred feet of travelway, overlaying, and cold-in-place recycling. Development may include right-of-way easements or grading rights, plan development of all or part of the project, permits, and utility relocation. The emphasis of level III projects is to make a major improvement that will allow lesser level treatments to be used in the future.

Highway Mobility Projects - Projects designed to improve traffic flow at locations with capacity limitations or other operational deficiency.

Hot Mulch - A maintenance pavement treatment used as a holding action until a more capital intensive treatment can be performed.

IM - Interstate Maintenance, a federal funding source for the interstate system.

ITS CVO - Intelligent Transportation System, Commercial Vehicle Operations

km - Kilometers

MPO - Metropolitan Planning Organization, formed in cooperation with the state, develops transportation plans and programs for a metropolitan area. The four MPO's in Maine are in the Portland area, Lewiston-Auburn area, Bangor area, and Kittery area.

NB - North Bound

NHS - National Highway System, a highway system, consisting primarily of existing Interstate routes and a portion of the federally designated principal arterial highways. These roads are considered most important to interstate travel and national defense, they connect with other modes of transportation, and are essential for international commerce.

PIN - Project Identification Number

RTAC - Regional Transportation Advisory Committee

SA - State Aid Road

SB - South Bound

STP - Surface Transportation Program, a federal funding source for federally designated highways.

TCM - Transportation Control Measures

TDM - Transportation Demand Management

MUNICIPAL INDEX

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Allagash	1
Alna	5
Alton	3
Amherst	2
Amity	1
Andover	7
Androscoggin County	7
Anson	4
Appleton	5
Argyle	3
Arundel	6
Ashland	1
Atkinson	3
Auburn	7
Augusta	4
Aurora	2
Baileyville	2
Baldwin	6
Bangor	3
Bar Harbor	2
Baring Plt	2
Barnard	3
Bath	5
Beals	2
Belfast	5
Belgrade	4

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Boothbay	5
Bowdoin	5
Bowdoinham	5
Bradford	3
Brewer	3
Bridgton	6
Brooks	5
Brooksville	2
Brookton Twp	2
Brownville	3
Brunswick	6
Buckfield	7
Bucksport	2
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Burnham	4
Buxton	6
Calais	2
Cambridge	4
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Canaan	4
Canton	7
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Caribou	1
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Cary Plt	1
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Charleston	3
Charlotte	2
Chelsea	4
Cherryfield	2
Chesterville	7
China	4
Clifton	3
Clinton	4
Columbia	2
Connor Twp	1
Cooper	2
Coplin Plt	7
Corinna	3
Corinth	3
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Cornville	4
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Danforth	2
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Dedham	2
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Dixfield	7
Dixmont	3
Dover-Foxcroft	3
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East Millinocket	3
Easton	1
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Edinburg	3
Edmunds Twp	2
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Fayette	4
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Fort Fairfield	1
Fort Kent	1
Frankfort	5
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Freedom	5
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Frenchville	1
Friendship	5
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Gilead	7
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Guilford	3
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Hamlin	1
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Harrington	2
Harrison	6
Hartford	7
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Herseytown Twp	1
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Hodgdon	1
Holden	3
Hollis	6
Houlton	1
Howland	3
Hudson	3
Industry	7
Island Falls	1
Jackman	4
Jay	7
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Jim Pond Twp	7
Johnson Mt Twp	4
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Kenduskeag	3
Kennebunk	6
Kennebunkport	6
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Kingman Twp	3
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Knox	5
Lagrange	3
Lamoine	2
Lebanon	6
Lee	3
Leeds	7
Letter E Twp	7
Levant	3
Lewiston	7
Liberty	5
Limerick	6
Limestone	1
Limington	6
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Lincolnville	5
Linneus	1
Lisbon	7
Litchfield	4
Littleton	1
Livermore	7
Livermore Falls	7
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Lubec	2
Ludlow	1
Lyman	6
Machias	2
Machiasport	2
Macwahoc Plt	1
Madawaska	1
Madison	4
Madrid	7
Magalloway Plt	7
Manchester	4
Mapleton	1
Mariaville	2
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Mars Hill	1

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Mattamiscontis	3
Mechanic Falls	6
Meddybemps	2
Medford	3
Medway	3
Mexico	7
Milbridge	2
Milford	3
Millinocket	3
Milo	3
Milton Twp	7
Minot	7
Monmouth	4
Monroe	5
Monticello	1
Montville	5
Moro Plt	1
Morrill	5
Moscow	4
Mt Chase	1
Mt Desert	2
Mt Vernon	4
Naples	6
New Canada	1
New Gloucester	6
New Limerick	1
New Portland	7
New Sharon	4
New Sweden	1
Newburgh	3
Newcastle	5
Newport	3
Newry	7
No 14 Twp	2
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Norridgewock	4
North Berwick	6
North Yarmouth	6
North Yarmouth Academy	1

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Norway	7
Oakland	4
Ogunquit	6
Old Orchard Beach	6
Old Town	3
Orient	1
Orland	2
Orono	3
Orrington	3
Osborn	2
Otisfield	6
Oxbow Plt	1
Oxford	7
Oxford County	7
Palmyra	4
Paris	7
Parkman	3
Parsonsfield	6
Patten	1
Pembroke	2
Penobscot	2
Perham	1
Perkins Twp	7
Perry	2
Peru	7
Phillips	7
Pittsfield	4
Pittston	4
Plymouth	3
Poland	6
Portage Lake	1
Portland	6
Pownal	6
Prentiss Plt	3
Presque Isle	1
Princeton	2
Prospect	5
Randolph	4
Rangeley	7

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Readfield	4
Reed Plt	1
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Richmond	5
Robbinston	2
Rockland	5
Rockport	5
Rome	4
Roque Bluffs	2
Roxbury	7
Rumford	7
Sabattus	7
Saco	6
Salem Twp	7
Sandy River Plt	7
Sanford	6
Sangerville	3
Scarborough	6
Searsmont	5
Searsport	5
Sebago	6
Sebec	3
Sedgwick	2
Sherman	1
Sidney	4
Skowhegan	4
Smithfield	4
Smyrna	1
Solon	4
South Berwick	6
South Portland	6
South Thomaston	5
Springfield	3
St Agatha	1
St Francis	1
Stacyville	1
Standish	6

Municipality	Division
Statewide (see Regional/Statewide section)	0
Stetson	3
Steuben	2
Stockholm	1
Stockton S prings	5
Stonington	2
Stow	7
Strong	7
Sullivan	2
Sumner	7
Surry	2
Swanville	5
T02 R08	3
T3 Indian Purchase	3
The Forks Plt	4
Thomaston	5
Topsfield	2
Topsham	5
Trenton	2
Troy	5
Turner	7
Twp 09 SD	2
Twp 10 Sd	2
Twp01 R06 Wels	3
Twp02 R08 Nwp	3
Twp04 R09 Nwp	3
Twp09 R05 Wels	1
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Twp17 R04 Wels	1
Twp17 R05 Wels	1
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Wade	1
Waldo	5
Waldoboro	5
Wales	7
Wallagrass Plt	1
Waltham	2
Warren	5
Washburn	1
Washington	5
Washington Twp	7
Waterboro	6
Waterford	7
Waterville	4
Wayne	4
Webster Plt	3
Weld	7
Wellington	4
Wells	6
West Bath	5
West Forks Plt	4
West Gardiner	4
West Paris	7
Westbrook	6
Weston	1
Whitefield	5
Whitneyville	2
Willimantic	3
Wilton	7
Windham	6
Windsor	4
Winn	3
Winslow	4
Winterport	5
Winthrop	4
Wiscasset	5
Woodland	1
Woodstock	7
Woodville	3
Woolwich	5

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York	6